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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,679	10/12/1999	DAVID J. STACEY	476-1854	6455

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WILLIAM M LEE JR
LEE MANN SMITH MCWILLIAMS
SWEENEY & OHLSON
P O BOX 2786
CHICAGO, IL 606902786

EXAMINER

LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 12/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/416,679

Applicant(s)

STACEY ET AL.

Examiner

Timothy Lee

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 3 recites the limitation "the dispatch of cells or packets" in line 2 of claim 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sriram (US 5,463,620).
7. Regarding claims 1, 2, 12, 16, and 17, Sriram discloses a communications system that integrates low-bandwidth traffic into a broadband network. Traffic from the narrowband sources are multiplexed to the broadband network using the dynamic time-slice server (a CPS adaptation

device for interfacing between a narrowband network and a broadband network). See Fig. 5, co.4, lines 64-67, and col. 5, lines 1-6. The dynamic time slice (DTS) server defines a predetermined cycle time D during which it visits each of the queuing circuits in sequence and withdraws a predetermined number of ATM cells from the queuing circuit and transfers that predetermined number of cells onto the output link (CPS provides scheduling, prioritization, and multiplexing of ingress traffic). In using an allocation strategy that is predetermined, the DTS is also multiplexing the traffic onto the broadband network independent of the type of traffic that is being inputted (multiplexing of ingress traffic onto the broadband network independently of the AAL type of traffic). See col. 5, lines 34-50, and Figs. 5 and 6. As seen in Fig. 6, each of the ingress paths has a queue (ingress path incorporates a common memory for payload storage whereby to perform multiplexing at both AAL and ATM layers). Fig. 1 discloses an ATM network, so in order for communications to take place between nodes, the node must be able to perform the multiplexing functions mentioned previously in reverse—i.e. it must be able to demultiplex the cells and route them to their proper destination (egress path provides for segregation and delineation).

8. Regarding claims 3, 4, 13 and 14, some of the types of input traffic include voice and real-time services, so it is inherent that the egress path must work in a flow-through mode to provide those services in real-time. The combination of different types of traffic on the same line requires that on egress, segregation be based on such factors as call state and packet type. See col. 3, lines 61-67, col. 4, lines 1-26, and Fig. 5.

9. Regarding claims 6 and 15, the multiplexing of input traffic is predetermined where each input line is scheduled to have a certain amount of time to transmit data. By providing this

cyclic service discipline, congestion avoidance is achieved (multiplexing is controlled by scheduling and congestion avoidance mechanism). See col. 1, lines 50-57.

10. Regarding claim 7, Sriram discloses that the system can handle a variety of traffic. As mentioned in the application, AAL2 data tends to include voice data. Sriram discloses the storage of call traffic, called Type 2 traffic in the reference. The system can also store delay insensitive ATM cells. See col. 7, lines 57-67, and col. 8, lines 1-24.

11. Regarding claim 8, Fig. 1. shows that each node connects to more than one other node. In order to send the packets to the correct node, the DTS must have a switching capability (CPS device arranged to provide an AAL2 and ATM switching function).

12. Regarding claim 9, it can be seen from Fig. 1 that each node is connected to at least one other node. In order to connect to other nodes, the system must have trunking capabilities for at least ATM.

13. Regarding claim 10, the queues shown in Fig. 6 act as buffers where incoming packets are stored until the DTS chooses to transmit from that queue.

14. Regarding claim 11, the predetermined cycle time period is selected so that it is no longer than the maximum amount of time delay which is tolerable for the most delay sensitive traffic handled by the node—the buffer holds the traffic until the DTS visits the queuing circuit (incorporating an ingress dynamic buffer whereby to provide quality of service control).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shon (US 5,499,238), Oskouy et al (US 5,625,625), Chin et al (US 6,490,298),

Art Unit: 2697

Wallmeier (US 5,526,345), and Byers et al. (US 5,949,791) disclose systems that schedule and multiplex narrowband signals onto broadband networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)305-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-6743 for regular communications and (703)308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

TLL
December 6, 2002


RICKY NGO
PRIMARY EXAMINER